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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,660	06/24/2003	John J. Vrana	60,152-978	1062

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EXAMINER	
OMGBA, ESSAMA	
ART UNIT	**PAPER NUMBER**
3726	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,660	VRANA, JOHN J.	
	Examiner	Art Unit	
	Essama Omgba	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-15 and 17-20* is/are rejected.

7)☒ Claim(s) *8 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/03/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 1, line 5, --to-- should be inserted after "relates", in line 19, "which" should read --with--; and on page 5, line 16, reference numeral "22" should read --24--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Reusser (US patent 3,276,499).

Reusser discloses a pierce nut installation apparatus comprising a reciprocating plunger **P** having an end portion engaging and installing pierce nuts in a panel 14, the end portion of the plunger including a generally cylindrical guide portion 16 projecting from the end portion of the plunger received in bore 2 of the pierce nut, an outer diameter of the cylindrical guide portion being substantially equal to an internal diameter of the bore, the cylindrical guide portion being an axial pilot, and wherein the cylindrical guide could be a retracting pilot, see column 4, lines 62-70, column 6, lines 1-5 and figures 1-3. Applicant should note that the pierce nut feed passage for receiving pierce

nuts and the plunger passage communicating the feed passage receiving the pierce nuts from the feed passage are conventional in the art and that the cylindrical guide portion disclosed by Reusser is capable of preventing cocking of the pierce nuts. Applicant should also note that it is inherent that Reusser's plunger will have an axial bore in the embodiment where the guide pilot is retractable.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reusser.

Reusser discloses a pierce nut installation apparatus as shown above except for the generally cylindrical guide portion being formed of a hard polymer. However it would have been an obvious to one of ordinary skill in the art at the time the invention was made that forming the cylindrical guide element of a hard polymer is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in forming the cylindrical portion of a hard polymer versus the material disclosed by Reusser.

6. Claims 3, 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reusser in view of Kitaura (JP 62050021).

Reusser discloses a pierce nut installation apparatus as shown above except for the end portion of the plunger including a threaded axial opening and the generally cylindrical guide portion including a male threaded portion threadably received in the threaded axial opening. However Kitaura teaches threaded axial opening in a plunger 11 and such male threaded end portion 12, see figure 6 for example. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the pierce nut installation apparatus of Reusser with a plunger with a threaded axial opening and a cylindrical guide portion with a male threaded end portion threadable received in the threaded axial opening, in light of the teachings of Kitaura, in order to be able to facilitate feeding of the nuts to the punch. Applicant should note that such plungers are conventionally made of steel.

7. Claims 5, 7, 9, 13-15, 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reusser in view of Capuano (US Patent 4,389,766).

With regards to claims 5, 13 and 15, Reusser discloses a pierce nut installation apparatus as shown above except for the generally cylindrical guide portion being frustoconical having a major diameter at the end portion of the plunger substantially equal to the internal diameter of the bore of the pierce nuts. However Capuano teaches such guide portion, see column 7, lines 21-26. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have designed the guide portion of the plunger of Reusser frustoconical with a major diameter at the end portion of the plunger substantially equal to the internal diameter of the bore of the

pierce nuts, in light of the teachings of Capuano, in order to accurately locate the pierce nuts during installation.

For claims 7 and 15, see figure 5 of Capuano.

For claim 9, see figure 1 of Reusser.

With regards to claim 14, Applicant should note that forming the cylindrical guide element of a hard polymer is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in forming the cylindrical portion of a hard polymer versus the material disclosed by Reusser.

With regards to claims 17 and 18, Reusser discloses a pierce nut installation apparatus comprising a reciprocating plunger **P** having an end portion engaging and installing pierce nuts in a panel 14, the end portion of the plunger including a generally cylindrical guide portion 16 projecting from the end portion of the plunger received in bore 2 of the pierce nut, an outer diameter of the cylindrical guide portion being substantially equal to an internal diameter of the bore, the cylindrical guide portion being an axial pilot, and wherein the cylindrical guide could be a retracting pilot, see column 4, lines 62-70, column 6, lines 1-5 and figures 1-3. Reusser does not disclose the generally cylindrical guide portion being frustoconical having a major diameter at the end portion of the plunger substantially equal to the internal diameter of the bore of the pierce nuts. However Capuano teaches such guide portion, see column 7, lines 21-26. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have designed the guide portion of the plunger of Reusser frustoconical with a major diameter at the end portion of the plunger substantially equal

to the internal diameter of the bore of the pierce nuts, in light of the teachings of Capuano, in order to accurately locate the pierce nuts during installation. Applicant should note that the pierce nut feed passage for receiving pierce nuts and the plunger passage communicating the feed passage receiving the pierce nuts from the feed passage are conventional in the art and that the cylindrical guide portion disclosed by Reusser is capable of preventing cocking of the pierce nuts. Applicant should also note that it is inherent that Reusser's plunger will have an axial bore in the embodiment where the guide pilot is retractable.

With regards to claim 20, Applicant should note that forming the cylindrical guide element of a hard polymer is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in forming the cylindrical portion of a hard polymer versus the material disclosed by Reusser.

8. Claims 12 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Reusser/Capuano as applied to claims 11 and 17 above, and further in view of Kitaura.

Reusser/Capuano discloses a pierce nut installation apparatus as shown above except for the end portion of the plunger including a threaded axial opening and the generally cylindrical guide portion including a male threaded portion threadably received in the threaded axial opening. However Kitaura teaches threaded axial opening in a plunger 11 and such male threaded end portion 12, see figure 6 for example. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the pierce nut installation apparatus of Reusser/Capuano with a plunger with a threaded axial opening and a cylindrical guide portion with a male

threaded end portion threadable received in the threaded axial opening, in light of the teachings of Kitaura, in order to be able to facilitate feeding of the nuts to the punch.

Allowable Subject Matter

9. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (703) 305-2915. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Essama Omgba
Primary Examiner
Art Unit 3726

eo
September 28, 2004